Abstract

The invention provides a valve that one may use to finely adjust the amount of fluid that flows to a device such as a portable gas burner. The valve includes a receiver through which fluid flows when the valve is open, a metering groove operable to form a metering passage in the receiver to limit the flow of fluid through the receiver, and a stem positionable relative to the receiver to form the metering passage from different portions of the metering groove to adjust the amount of fluid that may flow through the receiver. The metering groove includes a groove axis that extends the length of the metering groove and cross-sectional areas oriented perpendicular to the groove axis that differ according to their location along the axis. The metering passage is formed from all or a portion of the metering groove, and limits the flow of fluid through the receiver with the smallest cross-sectional area of the metering groove portion that forms the metering passage. To adjust the flow of fluid through the receiver, one moves the stem relative to the receiver to change the portion of the metering groove that forms the metering passage, and thus, change the smallest cross-sectional area of the metering groove that is included in the metering passage. Thus, the valve can finely adjust the amount of fluid that flows through the valve.